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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,927	03/02/2004	Sunil C. Jha	106619.140 MOTT4-DV2	1423

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BOSTON, MA 02109

EXAMINER
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PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/790,927

Applicant(s)

JHA ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/22/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Adler et al (6,547,967 B1) or Hart (4,046,939).

Adler et al disclose a composite porous media filter comprising a ceramic foam having a reticulated, inter-cellular structure with a multiplicity of interconnected pores extending therethrough or a network in the form of open-cell ceramic foams (col. 1, lines 20-21), and the foam pores are impregnated with sintered powder (col. 1, lines 26-33). Also see col. 1, lines 34-47, col. 3, lines 36-55, col. 8, lines 52-62). Hart discloses an open cell solid resin foam wherein the foam is impregnated with an adsorbent such as finely divided carbon or is impregnated with chemically active materials (col. 1, lines 31-

35 and lines 47-67, col. 2, lines 12-39) or a metal powder such as titanium dioxide (col. 5, lines 1-11). Claims 1-19 differ from the disclosure of either Adler et al or Hart in that the claims call for a conduit having an inlet for receiving a fluid and an outlet for providing a filtered fluid. It is inherently understood that as a porous filter media the filter media is located in the middle of the device where a fluid stream enters the device via an inlet opening and the filtered fluid stream exits the device via an outlet opening after the fluid stream goes through the filter media to be filtered. In addition, the phrase "a conduit having an inlet for receiving a fluid and an outlet for providing a filtered fluid" is merely an intended use and it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See Ex parte Masham, 2 USPQ 2d 1647 (1987).

Regarding to numerical requirements of claims 8-14, 18 and 19, i.e., "range of about 10% to about 50% of the total thickness of the media" of claim 8, etc., the specification contains no disclosure of either the critical nature of these requirements or any unexpected results arising therefrom, and as such these requirements would be arbitrary and therefore obvious. Applicants **must** show that these requirements are critical. In re Woodruff, 16 USPQ 2d 1934.

### ***Response to Arguments***

Applicant's arguments filed on February 18, 2005 have been fully considered but they are not persuasive.

Applicant argues that the cited references "do not disclose a foam having a reticulated, inter-cellular structure with a multiplicity of interconnected pores extending therethrough, and the pores of the foam are impregnated with sintered powder". The Examiner now drops both references Ettel and Helferich et al and newly introduces Adler et al and Hart under 103 rejections to show a composite porous media filter comprising a ceramic foam having a reticulated, inter-cellular structure with a multiplicity of interconnected pores extending therethrough or a network in the form of open-cell ceramic foams (col. 1, lines 20-21), and the foam pores are impregnated with sintered powder (col. 1, lines 26-33). Also see col. 1, lines 34-47, col. 3, lines 36-55, col. 8, lines 52-62). Hart discloses an open cell solid resin foam wherein the foam is impregnated with an adsorbent such as finely divided carbon or is impregnated with chemically active materials (col. 1, lines 31-35 and lines 47-67, col. 2, lines 12-39) or a metal powder such as titanium dioxide (col. 5, lines 1-11), as claimed.

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection, as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Minh-Chau Pham**  
**Patent Examiner**  
**Art Unit: 1724**  
**May 23, 2005**